



PUBLIC NOTICE

Federal Communications Commission
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Washington, D.C. 20554

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COMMENT SOUGHT ON GOOGLE PROPOSALS REGARDING SERVICE RULES FOR 700 MHz BAND SPECTRUM

WT Docket No. 06-150; WT Docket No. 06-169; PS Docket No. 06-229; WT Docket No. 96-86

Comments Due: 7 days after publication in the Federal Register
Reply Comments Due: 14 days after publication in the Federal Register

On April 27, 2007, the Commission released a Report and Order and Further Notice of Proposed Rulemaking which addresses rules governing wireless licenses in the 698-806 MHz Band (herein, the “700 MHz Band”).¹ This spectrum currently is occupied by television broadcasters in TV channels 52-69 and is being made available for wireless services, including public safety and commercial services, as a result of the digital television (“DTV”) transition. On May 21, 2007, Google Inc. (“Google”) filed an *ex parte* letter asking that the Commission seek immediate comment on certain proposals regarding the service rules for the 700 MHz Band spectrum that is to be auctioned.² By this Public Notice, the Wireless Telecommunications Bureau seeks comment on those proposals as well as any other alternative approaches for conditioning the licenses that will be auctioned.

First, Google requests that the Commission clarify that the Commission’s existing rules governing commercial spectrum in the 700 MHz Band already allow licensees to utilize “dynamic auction mechanisms,” such as real-time auctions and per-device registration fees.³ In Google’s real-time airwaves auction model, a licensee could bestow the right to transmit an amount of power for a unit of

¹ Service Rules for the 698-746, 747-762 and 777-792 MHz Bands, WT Docket No. 06-150, Revision of the Commission’s Rules to Ensure Compatibility with Enhanced 911 Emergency Calling Systems, CC Docket No. 94-102, Section 68.4(a) of the Commission’s Rules Governing Hearing Aid-Compatible Telephones, WT Docket No. 01-309, Biennial Regulatory Review – Amendment of Parts 1, 22, 24, 27, and 90 to Streamline and Harmonize Various Rules Affecting Wireless Radio Services, WT Docket 03-264, Former Nextel Communications, Inc. Upper 700 MHz Guard Band Licenses and Revisions to Part 27 of the Commission’s Rules, WT Docket No. 06-169, Implementing a Nationwide, Broadband, Interoperable Public Safety Network in the 700 MHz Band, PS Docket No. 06-229, Development of Operational, Technical and Spectrum Requirements for Meeting Federal, State and Local Public Safety Communications Requirements Through the Year 2010, WT Docket No. 96-86, Report and Order and Further Notice of Proposed Rulemaking, FCC 07-72 (2007) (*700 MHz Band Report and Order and Further Notice*).

² Letter from Richard S. Whitt, Esq., Washington Telecom and Media Counsel, Google, Inc. to Marlene H. Dortch, Secretary, FCC, filed May 21, 2007 (*Google Ex Parte*).

³ *Id.* at 3-4.

time, with the total amount of power in any location being limited to a specified cap.⁴ According to Google, as part of a real-time auction process, the communications device itself could become key to the payment process. For example, a consumer's price to purchase a device could include an airwaves registration fee that would grant the ability to gain unlimited use at a specified power level.⁵ We seek comment broadly on the extent to which the Commission's existing rules permit 700 MHz licensees to employ such "dynamic spectrum management techniques."⁶ To the extent they are not currently permitted, we ask whether the Commission should modify any of its rules to permit their use.

Second, Google requests that the Commission "posit at least whether it would be in the public interest to mandate [the use of such techniques] for some, or even all, of the commercial spectrum to be auctioned in the 700 MHz bands."⁷ We seek comment on whether the Commission should mandate such an approach, and if so, to what extent.

Lastly, Google proposes that the unpaired 6 megahertz E Block (722-728 MHz) in the current Lower 700 MHz band plan be designated, "primarily or exclusively, for the deployment of broadband communications platforms."⁸ Specifically, Google contends, this unpaired Block "only should be: (1) utilized for interactive, two-way broadband services, (2) connected to the public Internet, and (3) used to support innovative software-based applications, services, and devices."⁹ We seek comment on that proposal.

We also seek comment on the attached Initial Regulatory Flexibility Analysis of Google's proposals (see Appendix).

This action is taken under delegated authority pursuant to Sections 0.131 and 0.331 of the Commission's rules, 47 C.F.R. §§ 0.131, 0.331.

Interested parties may file comments on or before **[7 days after publication in the Federal Register]**, and reply comments on or before **[14 days after publication in the Federal Register]**. This abbreviated comment cycle is appropriate considering the Commission's need to establish service rules for the 700 MHz band sufficiently in advance of the auction, which must commence no later than January 28, 2008.¹⁰ Moreover, our decision to highlight the issues addressed in Google's letter in this abbreviated comment cycle arises out of an abundance of caution and to ensure that the Commission has as complete and comprehensive a record as possible before ruling on these issues, not because we consider the current procedural stance of this rulemaking to require it.

Comments may be filed using the Commission's Electronic Comment Filing System (ECFS) or by filing paper copies.¹¹ Comments filed through the ECFS can be sent as an electronic file via the Internet to <http://www.fcc.gov/cgb/ecfs/>. Generally, only one copy of an electronic submission must be

⁴ *Id.* According to Google, the airwaves auction would be managed via the Internet by a central clearinghouse. *Id.* at 4.

⁵ *Id.* Google also states that the device could include collision-detection and back-off features to limit congestion. *Id.*

⁶ *Id.* at 4.

⁷ *Id.* at 4.

⁸ *Id.* at 4.

⁹ *Id.* at 4-5.

¹⁰ See 700 MHz Band Report and Order and Further Notice at ¶ 2.

¹¹ See *Electronic Filing of Documents in Rulemaking Proceedings*, GC Docket No. 97-113, Report and Order, 13 FCC Rcd 11322 (1998).

filed. If multiple docket or rulemaking numbers appear in the caption of the proceeding, commenters must transmit one electronic copy of the comments to each docket or rulemaking number referenced in the caption. In completing the transmittal screen, commenters should include their full name, U.S. Postal Service mailing address, and the applicable docket or rulemaking numbers. All filings concerning this Public Notice should refer to WT Docket No. 06-150, WT Docket No. 06-169, PS Docket No. 06-229; and WT Docket No. 96-86. Parties may also submit an electronic comment by Internet e-mail. To get filing instructions for e-mail comments, commenters should send an e-mail to ecfs@fcc.gov, and should include the following words in the body of the message, "get form." A sample form and directions will be sent in reply. Parties who choose to file by paper must file an original and four copies of each filing. If more than one docket or rulemaking number appears in the caption of this proceeding, commenters must submit two additional copies for each additional docket or rulemaking number.

Paper filings can be sent by hand or messenger delivery, by commercial overnight courier, or by first-class or overnight U.S. Postal Service mail (although we continue to experience delays in receiving U.S. Postal Service mail). **Parties are strongly encouraged to file comments electronically using the Commission's ECFS.**

The Commission's contractor will receive hand-delivered or messenger-delivered paper filings for the Commission's Secretary at 236 Massachusetts Avenue, N.E., Suite 110, Washington, D.C. 20002.

- The filing hours at this location are 8:00 a.m. to 7:00 p.m.
- All hand deliveries must be held together with rubber bands or fasteners.
- Any envelopes must be disposed of before entering the building.
- Commercial overnight mail (other than U.S. Postal Service Express Mail and Priority Mail) must be sent to 9300 East Hampton Drive, Capitol Heights, MD 20743.
- U.S. Postal Service first-class mail, Express Mail, and Priority Mail should be addressed to 445 12th Street, S.W., Washington, D.C. 20554.

All filings must be addressed to the Commission's Secretary, Marlene H. Dortch, Office of the Secretary, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554. Parties should also send a copy of their filings to John Branscome, Spectrum and Competition Policy Division, Wireless Telecommunications Bureau, Federal Communications Commission, 445 12th Street, S.W., Washington, D.C. 20554, or by e-mail to John.Branscome@fcc.gov. Parties shall also serve one copy with the Commission's copy contractor, Best Copy and Printing, Inc. (BCPI), Portals II, 445 12th Street, S.W., Room CY-B402, Washington, D.C. 20554, (202) 488-5300, or via e-mail to fcc@bcpiweb.com.

Documents in WT Docket No. 06-150, WT Docket No. 06-169, PS Docket No. 06-229, and WT Docket No. 96-86 will be available for public inspection and copying during business hours at the FCC Reference Information Center, Portals II, 445 12th St. S.W., Room CY-A257, Washington, DC 20554. The documents may also be purchased from BCPI, telephone (202) 488-5300, facsimile (202) 488-5563, TTY (202) 488-5562, e-mail fcc@bcpiweb.com.

To request materials in accessible formats for people with disabilities (braille, large print, electronic files, audio format), send an e-mail to fcc504@fcc.gov or call the Consumer & Governmental Affairs Bureau at 202-418-0530 (voice), 202-418-0432 (tty).

This matter shall be treated as a "permit-but-disclose" proceeding in accordance with the Commission's *ex parte* rules.¹² Persons making oral *ex parte* presentations are reminded that memoranda

¹² 47 C.F.R. § 1.1200 *et seq.*

summarizing the presentations must contain summaries of the substance of the presentations and not merely a listing of the subjects discussed. More than a one- or two-sentence description of the views and arguments presented generally is required.¹³ Other requirements pertaining to oral and written presentations are set forth in section 1.1206(b) of the Commission's rules.¹⁴

For further information, contact John Branscome of the Spectrum and Competition Policy Division, at (202) 418-8205.

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¹³ See 47 C.F.R. § 1.1206(b)(2).

¹⁴ 47 C.F.R. § 1.1206(b).

APPENDIX

Initial Regulatory Flexibility Analysis

1. As required by the Regulatory Flexibility Act of 1980, as amended (the “RFA”),¹ the Commission has prepared this Initial Regulatory Flexibility Analysis (“IRFA”) of the possible significant economic impact of the proposal described in the attached Public Notice on small entities.² Written public comments are requested on this IRFA. Comments must be identified as responses to the IRFA and must be filed by the deadline for comments in the Public Notice. The Commission will send a copy of the Public Notice, including this IRFA, to the Chief Counsel for Advocacy of the Small Business Administration (“SBA”).³ In addition, the Public Notice and IRFA (or summaries thereof) will be published in the Federal Register.⁴

2. Although Section 213 of the Consolidated Appropriations Act of 2000 provides that the RFA shall not apply to the rules and competitive bidding procedures for frequencies in the 746-806 MHz band,⁵ the Commission believes that it would serve the public interest to analyze the possible significant economic impact of proposed policy and rule changes in this band on small entities. Accordingly, this IRFA contains an analysis of this impact in connection with all spectrum that falls within the scope of this Public Notice, including spectrum in the 746-806 MHz band.

A. Need for, and Objectives of, the Proposed Rules

3. The Public Notice seeks comments broadly on a proposal recently submitted by Google and on any other alternative approaches for conditioning the licenses that will be auctioned in the 700 MHz Band. Google requests that the Commission clarify the service rules governing the 700 MHz Band and declare that the rules allow the use of “dynamic auction” mechanisms such as real-time auctions and per-device registration fees. Google also asks the Commission to consider whether it would be in the public interest to mandate such mechanisms for some, or even all, of the commercial spectrum to be auctioned in the 700 MHz Band. The Public Notice also seeks comment on Google’s proposal that the unpaired 6 megahertz E Block (722-728 MHz) in the current Lower 700 MHz band plan should be designated primarily or exclusively to be used for deployment of broadband communications platforms.

B. Legal Basis

4. The legal authority for the actions proposed in this Public Notice are contained in sections 1, 2, 4(i), 5(c), 7, 10, 201, 202, 208, 214, 301, 302, 303, 307, 308, 309, 310, 311, 314, 316, 319, 324, 332,

¹The RFA, *see* 5 U.S.C. §§ 601 – 612, has been amended by the Small Business Regulatory Enforcement Fairness Act of 1996 (“SBREFA”), Pub. L. No. 104-121, Title II, 110 Stat. 857 (1996).

² *See* 5 U.S.C. § 603. Although we are conducting an IRFA at this stage in the process, it is foreseeable that ultimately we will certify this action pursuant to the RFA, because we anticipate at this time that any rules adopted pursuant to this *Public Notice* will have no significant economic impact on a substantial number of small entities. *See* 5 U.S.C. § 605(b).

³ *See* 5 U.S.C. § 603(a).

⁴ *See* 5 U.S.C. § 603(a).

⁵ In particular, this exemption extends to the requirements imposed by Chapter 6 of Title 5, United States Code, Section 3 of the Small Business Act (15 U.S.C. 632) and Sections 3507 and 3512 of Title 44, United States Code. Consolidated Appropriations Act 2000, Pub. L. No. 106-113, 113 Stat. 2502, Appendix E, Sec. 213(a)(4)(A)-(B); *see* 145 Cong. Rec. H12493-94 (Nov. 17, 1999); 47 U.S.C.A. 337 note at Sec. 213(a)(4)(A)-(B).

333, 336, 337, 614, 615, and 710 of the Communications Act of 1934, as amended, 47 U.S.C. §§ 151, 152, 154(i), 155(c), 157, 160, 201, 202, 208, 214, 301, 302, 303, 307, 308, 309, 310, 311, 314, 316, 319, 324, 332, 333, 336, 337, 534, 535, and 610.

C. Description and Estimate of the Number of Small Entities to Which the Proposed Rules Will Apply

5. The RFA directs agencies to provide a description of, and where feasible, an estimate of the number of small entities that may be affected by the proposed rules, if adopted.⁶ The RFA generally defines the term “small entity” as having the same meaning as the terms “small business,” “small organization,” and “small governmental jurisdiction.”⁷ In addition, the term “small business” has the same meaning as the term “small business concern” under the Small Business Act.⁸ A “small business concern” is one which: (1) is independently owned and operated; (2) is not dominant in its field of operation; and (3) satisfies any additional criteria established by the Small Business Administration (“SBA”).⁹

6. *Small Businesses.* Nationwide, there are a total of approximately 22.4 million small businesses, according to SBA data.¹⁰

7. *Small Organizations.* Nationwide, there are approximately 1.6 million small organizations.¹¹

8. *Governmental Entities.* The term “small governmental jurisdiction” is defined as “governments of cities, towns, townships, villages, school districts, or special districts, with a population of less than fifty thousand.”¹² As of 2002, there were approximately 87,525 governmental jurisdictions in the United States.¹³ This number includes 38,967 county governments, municipalities, and townships, of which 37,373 (approximately 95.9%) have populations of fewer than 50,000, and of which 1,594 have populations of 50,000 or more. Thus, we estimate the number of small governmental jurisdictions overall to be 85,931 or fewer.

9. *Wireless Service Providers.* The SBA has developed a small business size standard for wireless firms within the two broad economic census categories of “Paging”¹⁴ and “Cellular and Other Wireless Telecommunications.”¹⁵ Under both categories, the SBA deems a wireless business to be small

⁶ 5 U.S.C. § 603(b)(3).

⁷ 5 U.S.C. § 601(6).

⁸ 5 U.S.C. § 601(3) (incorporating by reference the definition of “small-business concern” in the Small Business Act, 15 U.S.C. § 632). Pursuant to 5 U.S.C. § 601(3), the statutory definition of a small business applies “unless an agency, after consultation with the Office of Advocacy of the Small Business Administration and after opportunity for public comment, establishes one or more definitions of such term which are appropriate to the activities of the agency and publishes such definition(s) in the Federal Register.”

⁹ 15 U.S.C. § 632.

¹⁰ See SBA, Programs and Services, SBA Pamphlet No. CO-0028, at page 40 (July 2002).

¹¹ Independent Sector, The New Nonprofit Almanac & Desk Reference (2002).

¹² 5 U.S.C. § 601(5).

¹³ U.S. Census Bureau, Statistical Abstract of the United States: 2006, Section 8, pages 272-273, Tables 415 and 417.

¹⁴ 13 C.F.R. § 121.201, NAICS code 517211.

¹⁵ 13 C.F.R. § 121.201, NAICS code 517212.

if it has 1,500 or fewer employees. For the census category of Paging, Census Bureau data for 2002 show that there were 807 firms in this category that operated for the entire year.¹⁶ Of this total, 804 firms had employment of 999 or fewer employees, and three firms had employment of 1,000 employees or more.¹⁷ Thus, under this category and associated small business size standard, the majority of firms can be considered small. For the census category of Cellular and Other Wireless Telecommunications, Census Bureau data for 2002 show that there were 1,397 firms in this category that operated for the entire year.¹⁸ Of this total, 1,378 firms had employment of 999 or fewer employees, and 19 firms had employment of 1,000 employees or more.¹⁹ Thus, under this second category and size standard, the majority of firms can, again, be considered small.

10. Under this Public Notice, any of the changes to the Commission's rules which may occur as a result of the Public Notice would be limited to the 698-806 MHz spectrum band. Since this proceeding applies to services in that band, this IRFA analyzes the number of small entities affected on a service-by-service basis. When identifying small entities that could be affected by the Commission's new rules, this IRFA provides information describing auctions results, including the number of small entities that were winning bidders. However, the number of winning bidders that qualify as small businesses at the close of an auction does not necessarily reflect the total number of small entities currently in a particular service. The Commission does not generally require that licensees later provide business size information, except in the context of an assignment or transfer of control application where unjust enrichment issues are implicated. Consequently, to assist the Commission in analyzing the total number of potentially affected small entities, the Commission requests commenters to estimate the number of small entities that may be affected by any rule changes that might result from this Public Notice.

11. *700 MHz Guard Band Licenses.* In the *700 MHz Guard Band Order*, the Commission adopted size standards for "small businesses" and "very small businesses" for purposes of determining their eligibility for special provisions such as bidding credits and installment payments.²⁰ A small business in this service is an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.²¹ Additionally, a "very small business" is an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.²² SBA approval of these definitions is not required.²³ An auction of 52 Major Economic Area (MEA) licenses commenced on

¹⁶ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517211 (issued Nov. 2005).

¹⁷ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

¹⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, "Establishment and Firm Size (Including Legal Form of Organization)," Table 5, NAICS code 517212 (issued Nov. 2005).

¹⁹ *Id.* The census data do not provide a more precise estimate of the number of firms that have employment of 1,500 or fewer employees; the largest category provided is for firms with "1000 employees or more."

²⁰ See Service Rules for the 746-764 MHz Bands, and Revisions to Part 27 of the Commission's Rules, *Second Report and Order*, 15 FCC Rcd 5299 (2000).

²¹ *Id.* at 5343 ¶ 108.

²² *Id.*

²³ *Id.* At 5343 ¶ 108 n.246 (for the 746-764 MHz and 776-704 MHz bands, the Commission is exempt from 15 U.S.C. § 632, which requires Federal agencies to obtain Small Business Administration approval before adopting small business size standards).

September 6, 2000, and closed on September 21, 2000.²⁴ Of the 104 licenses auctioned, 96 licenses were sold to nine bidders. Five of these bidders were small businesses that won a total of 26 licenses. A second auction of 700 MHz Guard Band licenses commenced on February 13, 2001, and closed on February 21, 2001. All eight of the licenses auctioned were sold to three bidders. One of these bidders was a small business that won a total of two licenses.²⁵

12. Upper 700 MHz Band Licenses. The Commission released a *Report and Order* authorizing service in the Upper 700 MHz band.²⁶ An auction for these licenses, previously scheduled for January 13, 2003, was postponed.²⁷

13. Lower 700 MHz Band Licenses. The Commission adopted criteria for defining three groups of small businesses for purposes of determining their eligibility for special provisions such as bidding credits.²⁸ The Commission has defined a small business as an entity that, together with its affiliates and controlling principals, has average gross revenues not exceeding \$40 million for the preceding three years.²⁹ A very small business is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$15 million for the preceding three years.³⁰ Additionally, the Lower 700 MHz Band has a third category of small business status that may be claimed for Metropolitan/Rural Service Area (MSA/RSA) licenses. The third category is entrepreneur, which is defined as an entity that, together with its affiliates and controlling principals, has average gross revenues that are not more than \$3 million for the preceding three years.³¹ The SBA has approved these small size standards.³² An auction of 740 licenses (one license in each of the 734 MSAs/RSAs and one license in each of the six Economic Area Groupings (EAGs)) commenced on August 27, 2002, and closed on September 18, 2002. Of the 740 licenses available for auction, 484 licenses were sold to 102 winning bidders. Seventy-two of the winning bidders claimed small business, very small business or entrepreneur status and won a total of 329 licenses.³³ A second auction commenced on May 28, 2003, and closed on June 13, 2003, and included 256 licenses: 5 EAG licenses and 476 CMA licenses.³⁴ Seventeen winning bidders claimed small or very small business status and won sixty licenses, and nine winning bidders

²⁴ See “700 MHz Guard Bands Auction Closes: Winning Bidders Announced,” *Public Notice*, 15 FCC Rcd 18026 (2000).

²⁵ See “700 MHz Guard Bands Auctions Closes: Winning Bidders Announced,” *Public Notice*, 16 FCC Rcd 4590 (WTB 2001).

²⁶ Service Rules for the 746-764 and 776-794 MHz Bands, and Revisions to Part 27 of the Commission’s Rules, *Second Memorandum Opinion and Order*, 16 FCC Rcd 1239 (2001).

²⁷ See “Auction of Licenses for 747-762 and 777-792 MHz Bands (Auction No. 31) Is Rescheduled,” *Public Notice*, 16 FCC Rcd 13079 (WTB 2003).

²⁸ See Reallocation and Service Rules for the 698-746 MHz Spectrum Band (Television Channels 52-59), *Report and Order*, 17 FCC Rcd 1022 (2002).

²⁹ *Id.* at 1087-88 ¶ 172.

³⁰ *Id.*

³¹ *Id.* at 1088 ¶ 173.

³² See Letter to Thomas Sugrue, Chief, Wireless Telecommunications Bureau, Federal Communications Commission, from Aida Alvarez, Administrator, Small Business Administration, dated August 10, 1999.

³³ See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 17 FCC Rcd 17272 (WTB 2002).

³⁴ See “Lower 700 MHz Band Auction Closes,” *Public Notice*, 18 FCC Rcd 11873 (WTB 2003).

claimed entrepreneur status and won 154 licenses.³⁵

14. *Public Safety Radio Licensees.* As a general matter, public safety radio licensees include police, fire, local government, forestry conservation, highway maintenance, and emergency medical services.³⁶ The SBA rules contain a small business size standard for cellular and other wireless telecommunications companies, which encompasses business entities engaged in wireless communications employing no more than 1,500 persons.³⁷ According to Census Bureau data for 2002, in this category there were 8,863 firms that operated for the entire year.³⁸ Of this total, 401 firms had 100 or more employees, and the remainder had fewer than 100 employees.³⁹ With respect to local governments, in particular, since many governmental entities as well as private businesses comprise the licensees for these services, we include under public safety services the number of government entities affected.

15. Wireless Communications Equipment Manufacturers; Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing. The Census Bureau defines this category as follows: “This industry comprises establishments primarily engaged in manufacturing radio and television broadcast and wireless communications equipment. Examples of products made by these establishments are: transmitting and receiving antennas, cable television equipment, GPS equipment, pagers, cellular phones, mobile communications equipment, and radio and television studio and broadcasting equipment.”⁴⁰ The SBA has developed a small business size standard for Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing, which is: all such firms having 750 or fewer employees.⁴¹ According to Census Bureau data for 2002, there were a total of 1,041 establishments in this category that operated for the entire year.⁴² Of this total, 1,010 had

³⁵ *Id.*

³⁶ See subparts A and B of Part 90 of the Commission’s Rules, 47 C.F.R. §§ 90.1-90.22. Police licensees include 26,608 licensees that serve state, county, and municipal enforcement through telephony (voice), telegraphy (code), and teletype and facsimile (printed material). Fire licensees include 22,677 licensees comprised of private volunteer or professional fire companies, as well as units under governmental control. Public Safety Radio Pool licensees also include 40,512 licensees that are state, county, or municipal entities that use radio for official purposes. There are also 7,325 forestry service licensees comprised of licensees from state departments of conservation and private forest organizations that set up communications networks among fire lookout towers and ground crews. The 9,480 state and local governments are highway maintenance licensees that provide emergency and routine communications to aid other public safety services to keep main roads safe for vehicular traffic. Emergency medical licensees (1,460) use these channels for emergency medical service communications related to the delivery of emergency medical treatment. Another 19,478 licensees include medical services, rescue organizations, veterinarians, persons with disabilities, disaster relief organizations, school buses, beach patrols, establishments in isolated areas, communications standby facilities, and emergency repair of public communications facilities.

³⁷ See 13 C.F.R. § 121.201 (NAICS code 517212); U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Employment Size of Establishments for the United States: 2002,” Table 2, NAICS code 517212.

³⁸ U.S. Census Bureau, 2002 Economic Census, Subject Series: Information, “Employment Size of Establishments for the United States: 2002,” Table 2, NAICS code 517212.

³⁹ *Id.*

⁴⁰ U.S. Census Bureau, 2002 NAICS Definitions, “334220 Radio and Television Broadcasting and Wireless Communications Equipment Manufacturing”; <http://www.census.gov/epcd/naics02/def/NDEF334.HTM#N3342>.

⁴¹ 13 C.F.R. § 121.201, NAICS code 334220.

⁴² U.S. Census Bureau, American FactFinder, 2002 Economic Census, Industry Series, Industry Statistics by Employment Size, NAICS code 334220 (released May 26, 2005); <http://factfinder.census.gov>. The number of “establishments” is a less helpful indicator of small business prevalence in this context than would be the number of “firms” or “companies,” because the latter take into account the concept of common ownership or control. Any single physical location for an entity is an establishment, even though that location may be owned by a different

employment of under 500, and an additional 13 had employment of 500 to 999.⁴³ Thus, under this size standard, the majority of firms can be considered small.

D. Description of Projected Reporting, Recordkeeping and Other Compliance Requirements

16. Google requests that the Commission clarify that the existing rules governing the commercial bands of the 700 MHz spectrum already allow licensees to utilize what it describes as “dynamic spectrum management techniques.” Google provides as examples “real-time airwaves auctions” and “device-driven registration.” According to Google, in real-time airwaves auctions, a licensee can bestow the right to transmit an amount of power for a unit of time, with the total amount of power in any location being limited to a specified cap. With a per-device registration process, Google states, the communications device itself can become a key to the payment process, and that a consumer’s price to purchase a device could include an airwaves registration fee that would grant the ability to gain unlimited use at a specified power level. Under its proposal, Google states that a licensee would simply purchase spectrum initially in the up-front auction, and then recover its costs over time by charging third parties for real-time and place use. The Public Notice seeks comment broadly on the extent to which the Commission’s existing rules permit 700 MHz licensees to employ such “dynamic spectrum management techniques,” and on whether the Commission should modify any of its rules to permit their use.

17. The Public Notice also seeks comment on Google’s request that the Commission posit at least whether it would be in the public interest to mandate the use of such techniques for some, or even all, of the commercial spectrum to be auctioned in the 700 MHz bands.

18. The Public Notice also seeks comment on Google’s proposal that the unpaired 6 MHz E Block (722-728 MHz) in the current Lower 700 MHz band plan should be designated primarily or exclusively to be used for deployment of interactive, two-way broadband services; connected to the public internet; and used to support innovative software-based applications, services and devices.

E. Steps Taken to Minimize Significant Economic Impact on Small Entities and Significant Alternatives Considered

19. The RFA requires an agency to describe any significant, specifically small business, alternatives that it has considered in reaching its proposed approach, which may include the following four alternatives (among others): “(1) the establishment of differing compliance or reporting requirements or timetables that take into account the resources available to small entities; (2) the clarification, consolidation, or simplification of compliance and reporting requirements under the rule for such small entities; (3) the use of performance rather than design standards; and (4) an exemption from coverage of the rule, or any part thereof, for such small entities.”⁴⁴

20. The Public Notice seeks comment on the relative merits of dynamic auction techniques. The Public Notice also seeks comment on whether the Commission should designate the unpaired 6 MHz E Block (722-728 MHz) in the current Lower 700 MHz band plan primarily or exclusively for deployment of broadband communications platforms. To assist in the analysis, commenters are requested to provide information regarding how small entities would be affected if the Commission were to adopt Google’s proposals. Commenters should also provide information on alternative approaches to alleviate any

establishment. Thus, the numbers given may reflect inflated numbers of businesses in this category, including the numbers of small businesses. In this category, the Census breaks-out data for firms or companies only to give the total number of such entities for 2002, which was 929.

⁴³ *Id.* An additional 18 establishments had employment of 1,000 or more.

⁴⁴ 5 U.S.C. §§ 603(c)(1)-(4).

potential burdens on small entities.

F. Federal Rules that May Duplicate, Overlap, or Conflict with the Proposed Rules

21. None.